

EOSDIS IV&V
Monthly Program Status Report
For the Period 12/1/94 to 12/31/94
(Deliverable 0201.6)

January 17, 1995

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1. PROGRAMMATIC INFORMATION

1.1 IV&V Project Organization Chart

Exhibit 1-1 illustrates the current organizational structure of the EOSDIS IV&V team. For each lead position, we have identified company affiliation, geographic location, phone

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number, and task assignment. Also included is the number of full time equivalent engineers assigned to each technical task.

1.2 Overview of Work Being Performed

a) List of Active Task Assignments

- Task 1: IV&V Program Management
- Task 2: Facilities, Operations, and Program Reporting
- Task 3: IV&V Plans
- Task 4: IV&V Infrastructure and Tool Development
- Task 5: Requirements Analysis and Traceability
- Task 9: Key Interface Analysis
- Task 10: Development of EOSDIS Integration and Certification Plan
- Task 12: EDOS IV&V
- Task 13: IV&V Special Studies

b) Key Recent Accomplishments

- **Programmatic**
 - Moved Greenbelt facilities to permanent quarters on second floor. In process of integrating network functions and enhancing MIS functions, including our GFE/CFE tracking system and our Issues and Discrepancy Tracking System (IDTS).
 - 56KB data line installed at the Greenbelt office. This line will be our gateway to GSFC and the rest of the EOSDIS community once the connection is activated. Currently investigating an upgrade to a T1 line due to the projected data load on the line.
 - Participated in Executive Council meeting held on December 12, 1994.
 - Participated in the second IV&V Findings meeting with Dale Harris, John Dalton, and other EOSDIS system managers to review key issues related to the overall EOSDIS program. These meetings now occur monthly.

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Exhibit 1-1: Org Chart (Landscape)

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- Attended ECS FOS PDR and generated 19 RIDs focusing on system functionality.
- **Technical**
 - Under Task 3, submitted final versions of the IV&V Management Plan (IVVMP) and the Independent System V&V Plan (ISVVP). All activities were completed on time and within budget. Task closed.
 - Under Task 4, completed the draft ISE System Architecture document and prepared for ISE System Architecture Review scheduled for January 12, 1995. Also, started developing an Issue/Discrepancy Handling System (IDHS) to centralize the tracking of issues and discrepancies generated by the IV&V team.
 - Under Task 5, completed the planning phase of the ECS IR-1 requirements analysis, and continued mapping user scenarios to ECS Level 3 requirements. Also, received the HAIS Version 1 BONEs model / data structures, and continued with our modeling analysis.
 - Under Task 9, met with Ted Ackerson (ESDIS TRMM Interface Manager) to conduct a detailed review of the findings within the TRMM Technical Assessment Report (TAR). Also, continued data flow analysis of Institutional and AM-1 IRDs, and began reviewing NASA Science Internet (NSI), Version 0, and EDOS-ECS IRDs.
 - Under Task 10, delivered initial draft of the EOSDIS Integration and Certification Plan (EICP), and briefed ESDIS management on EICP contents. Also, delivered the Performance Dependency Analysis Tool Requirements document one month ahead of schedule.
 - Under Task 12, participated in preliminary draft peer review of TRW's Contract Understanding Period (CUP) task assignment reports, and submitted preliminary Baseline Requirements Analysis Report. In addition, began importing EOS Level 1 and 2 requirements to the project IV&V RTM database and analyzing issues related to requirements technical integrity. Also, assessed the differences between the ECS Independent System V&V Plan (ISVVP) and the EDOS Performance Verification Plan (PVP), and recommended that the scope of the EPVP be broadened to more fully address the entire system life cycle.
 - Under Task 13, prepared task plan for the Phase II Version 0 (V0) analysis and met with Greg Hunolt (Assistant Technical Representative for Version 0) to present and discuss the plan. Also, contacted Hughes STX (the V0 development contractor) to assess the V0 timestamp capability, and exercised the V0 Character Mode Interface for the Langley V0 DAAC.

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c) New/Proposed Task Assignments

- We are requesting additional funding for Task 5 (Requirements Analysis and Traceability) so that the ECS model assessment activities (i.e., Subtask 5.3) can continue until August 1995 to coincide with the end of the ECS Release A CDR. If funding is not made available, the model assessment will have to stop by mid-February 1995 (i.e., shortly after the PDR).
- We suggest regrouping Tasks 6 and 7 into a single task called "Task 6: ECS Development Analysis." This single task will embrace the development analyses of all three ECS releases: IR-1, Release A, and Release B.

There are several advantages to combining these activities into a single task. First, since the release schedules overlap to a significant degree and are continually in flux, this one task will give us the flexibility to reallocate personnel as needed from release to release, without having to request a modification to the task SOW. This will eliminate administrative overhead, thereby saving the Government money while allowing the IV&V team to operate more efficiently.

Second, the new task will enable us to provide early comments to Release A. This is both possible and appropriate, since many ECS documents currently being generated contain data on both IR-1 and Release A.

Finally, the task will allow us to assess Release B during its Interim Design Review (IDR) period. Overall, the early visibility by the IV&V team into the development process will promote the quality and integrity of the end system.

d) Follow-up on Action Items from October 17 PSR

- 1) Shade IV&V Milestone Chart to reflect activities already accomplished.
Action: *Joe Gitelman, NASA; Ron Cariola, Intermetrics*
Status: Done.
- 2) Contact Steve Smith to resolve the issue of accessing the ECOM requirements database. **Action:** *Joe Gitelman, NASA*
Status: Open. This issue needs to be resolved within the next several months.
- 3) Provide cumulative expenditures for the program in numerical form.
Action: *Pam McLaughlin, Intermetrics*
Status: Done. Cumulative expenditures are now incorporated within this report.
- 4) Provide projections for program expenditures through September 1995.
Action: *Ron Cariola / Pam McLaughlin, Intermetrics*

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Status: Done.

- 5) To justify a lowering of the personnel requirements (specifically with respect to Task 4), write a letter to Becky Ragusa describing the job, the minimum qualifications needed, and the cost savings associated with creating this new job category.

Action: *Pam McLaughlin / Dan McCaugherty, Intermetrics*

Status: Letter and revised labor categories submitted to NASA. Awaiting response.

- 6) Provide a quarterly and cumulative breakout of contract dollars (resulting from labor usage) flowing from this program to West Virginia. Include this information with the submission of the 533Q report.

Action: *Pam McLaughlin, Intermetrics*

Status: Done.

1.3 Overview of Schedule Status

Exhibit 1-2 presents the latest, high level milestone chart (i.e., dated January 6, 1995) for all technical tasks assigned on the EOSDIS IV&V contract. In conjunction with this exhibit, Exhibit 1-3 lists in chronological order all deliverables/milestones associated with the contract and the status of each.

1.4 Performance Assurance Activities/Issues

- Program-level training on the larger aspects of EOSDIS is currently being planned for all IV&V team members. The intent of this training is to give all team members a broader knowledge of the program as a whole, as well as a more fundamental sense of program goals and issues.
- System administration and network training in Novell and Solaris/Unix is currently being planned. This training will be given to a core group of personnel to enhance our team's ability to address both internal and external connectivity issues.
- Training on Lotus Notes began at the end of October. This periodic training program will continue through February 95 and will cover user training, application development training, and system administration.
- Training for BONEs, a network model simulation and test tool, is currently targeted for the week of February 27, 1995. Expertise with this tool will enable the IV&V team to better assess the ECS models.

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Exhibit 1-2: Gitelman Milestone Chart (Landscape Paste-up)

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Date Due	Milestone/ Deliverable	Task #	Status*	Comments
7/8/94	ECS Release A SDR IV&V RIDs	5	C	Accomplished within 17 days of contract award.
7/8/94	SDR IRD RID Package	9	C	Accomplished within 17 days of contract award.
7/15/94	M1 Requirements and Architecture	4	C	Submitted on time.
8/16/94	IV&V Management Plan - Draft	3	C	Submitted ahead of schedule.
8/16/94	M1 Initial Tool Architecture Review	4	C	Conducted ahead of schedule.
8/30/94	ISE System Requirements - Draft	4	C	Submitted on time.
10/7/94	EOSDIS Modeling Assessment Report (User Demographics)	5	C	Submitted on time.
10/17/94	ISVVP - Initial	3	C	Submitted on 10/18/94.
10/17/94	Certification Criteria Determination Report - Initial	10	C	Submitted on time.
10/18/94	M1 Demonstration	4	C	Conducted on schedule.
10/28/94	Preliminary ECS Rqmts Analysis Report	5	C	Submitted on time.
10/31/94	ISE System Requirements - Update	4	C	Submitted on time.
10/31/94	Version 0 User Assessment	9	C	Submitted on time.
11/30/94	CUP Study Report (Studies: 1-4, 6)	12	C	Submitted on time.
12/1/94	ECS-TRMM IRD Pilot TAR	9	C	Submitted on time.
12/16/94	IV&V Management Plan - Final	3	C	Ahead of schedule.
12/16/94	ISVVP - Update	3	C	Submitted on time.
12/16/94	ISE System Architecture - Draft	4	C	Submitted on time.
12/16/94	Performance Dependency Analysis Tool Requirements	10	C	Submitted one month ahead of schedule.
12/16/94	EICP - Initial	10	C	Submitted ahead of schedule.
12/23/94	ECS FOS PDR IV&V RIDs	5, 9	C	Submitted ahead of schedule.
12/30/94	Initial ARDB	5	C	Initial database development complete. Updates needed after requirements stabilize.
12/30/94	EOSDIS Modeling Assessment Report	5	D	Data not available to complete the analysis. Need Version 2 of BONEs Model. New targeted completion date is 2/10/95.
12/30/94	Baseline Rqmts. Analysis Report	12	C	Submitted on time.
1/16/95	ISE System Architecture Review	4	C	Given on 1/12/94, ahead of planned schedule.
1/27/95	ECS CSMS PDR IV&V RIDs	5, 9	O	
1/31/95	ISE System Architecture - Update	4	IP	
1/31/95	ISE Development Plan - Draft	4	IP	
1/31/95	CUP Study Report (Studies: 5, 7-10)	12	IP	

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled

Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables

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Date Due	Milestone/ Deliverable	Task #	Status*	Comments
2/16/95	M1 Revision 2 Demo	4	O	
2/24/95	ECS SDPS PDR IV&V RIDs	5, 9	O	
2/28/95	ISE Development Plan - Final	4	O	
2/28/95	EOSDIS Test System (ETS) Memorandum	13	O	
3/1/95	ECS PDR Wrap-up IV&V RIDs	5, 9	O	
3/1/95	Initial ARDB for IRD Requirements	9	O	
3/16/95	ISE Element Requirements - Draft	4	O	
3/16/95	ECS IR-1 Requirements Analysis Report	5	O	
3/16/95	EICP - Interim	10	O	
4/17/95	ISE Element Requirements - Update	4	O	
4/28/95	SRR RIDs	12	O	
5/1/95	<i>ECS IR-1 IV&V Plan</i>	6	O	
5/16/95	ISE Element Software Design - Draft	4	O	
5/31/95	ISE System Design Review	4	O	
5/31/95	EDOS Acceptance Test Plan - Preliminary	12	O	
6/15/95	Certification Criteria Determination Report - Update	10	O	
6/15/95	EICP - Final	10	O	
7/3/95	<i>ECS IR-1 Requirements Traceability Analysis</i>	6	O	
7/31/95	ECS Release A CDR IV&V RIDs	5	O	
9/1/95	<i>ECS IR-1 Design Evaluation Report</i>	6	O	
9/15/95	ETS CDR RIDs	5	O	
9/15/95	<i>ECS Release A IV&V Plan</i>	7	O	
9/29/95	Draft IR-1 Test Plans and Test Procedures	11	O	
9/29/95	V0 System Performance Phase II TAR	13	O	
11/1/95	<i>ECS IR-1 Source Code Evaluation Report</i>	6	O	
12/15/95	<i>ECS Release A Rqmts. Traceability Analysis</i>	7	O	
12/29/95	Final IR-1 Test Plans and Test Procedures	11	O	

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled

Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables (Continued)

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Date Due	Milestone/Deliverable	Task #	Status*	Comments
1/15/96	<i>ECS IR-1 Test/Plan Procedure Comments</i>	6	O	
1/15/96	<i>ECS Release A Design Evaluation Report</i>	7	O	
2/15/96	<i>ECS IR-1 Test Comments</i>	6	O	
5/15/96	<i>ECS Release A Source Code Evaluation Report</i>	7	O	
5/15/96	<i>ECS Release A IV&V Test Plan</i>	8	O	
6/3/96	Initial Release A Test Plans and Test Procedures	11	O	
7/15/96	<i>ECS Release A Test/Plan Procedure Comments</i>	7	O	
8/15/96	<i>ECS Release A Test Comments</i>	7	O	
8/15/96	<i>ECS Release A Test Scenario Operations</i>	8	O	
9/16/96	<i>ECS Release A IV&V Test Procedures (Initial)</i>	8	O	
11/15/96	<i>ECS Release A IV&V Test Procedures (Update)</i>	8	O	
12/16/96	<i>ECS Release A IV&V Test Start</i>	8	O	
2/17/97	<i>ECS Release A IV&V Test Analysis Report</i>	8	O	
As Completed	IR-1 Test Reports	11	O	

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled

Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables (Continued)

- Additional training on the RTM tool to support the analysis tasks (i.e., Tasks 5, 6 and 9) has been approved and is currently being planned for the April time frame slated for early next year.
- The EOSDIS IV&V Home Page is being developed to facilitate EOS community access to IV&V-related information. This Home Page will reside on the Internet and will link users to both the IV&V library and the IV&V Issues and Discrepancy Tracking System (IDTS), which is currently being developed. The Home Page will also be linked to Hughes' Electronic Data Handling System (EDHS).

1.5 Major Short Term Activities Planned

- **Communications**
 - Prepare for the next IV&V Findings meeting scheduled for January 27, 1995.

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- Support the evaluation of the ECS PDR (CSMS and SDPS).
 - Continue developing interfaces and data access privileges between the IV&V team and Goddard, Hughes, TRW, CSC, and the Software IV&V Facility in West Virginia. Get on appropriate distribution lists.
 - Continue developing IV&V Home Page as well as on-line IV&V document library and discrepancy tracking system.
 - Work with Code 505 to consolidate and enhance the current task assignments so that they better reflect the present state of the EOSDIS program, which has been affected by a requirements scrub, a seasonal PDR, increased knowledge of the user community, etc.
- **Technical Performance**
 - For Task 4, generate a draft of the ISE Software Development Plan (SDP), achieve connectivity between the Lotus Notes servers in Greenbelt and Fairmont, and install updated version of client interface software for Interface Analysis Database (IADB) and Automated Requirements Database (ARDB).
 - For Task 5, analyze Version 2 of the HAIS user and performance models, establish RTM database partitioning capability between the IV&V team and HAIS, and prepare RIDs resulting from the ECS CSMS PDR.
 - For Task 9, continue the analysis and peer review of IRDs. The goal is to complete the requirements analysis of the IR-1 IRDs as well as AM-1 and EDOS for the March 1 delivery of the updated ARDB. Also, begin meetings with each EOSDIS Interface Manager.
 - For Task 10, begin the interim draft of the EICP. Also, develop plans for a database which will capture thread definitions and provide a certification cross reference index to map these threads to requirements.
 - For Task 12, review the revised CUP task assignment reports, and continue the RTM database design effort as well as the analysis of baseline requirements.
 - For Task 13, initiate telephone contact with the 6 DAACs selected for the V0 characterization, and test the use of the timestamp feature at these DAACs. Also, define V0 test scenarios and begin X-Windows access to V0 systems at GSFC, LaRC, and MSFC. In addition, begin analyzing the ETS.

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1.6 Key Long Range Plans/Schedules

The IV&V team will support the activities and milestones identified in Exhibit 1-2. Emphasis will be placed on those activities that are on the critical path to support the on-time launch of the spacecraft. Such activities include Key Interface and Integration Testing (KIIT) and System Certification.

In addition, the IV&V team realizes the critical importance of a successful ECS Interim Release 1 and Release A to the future of the EOSDIS program. We will devote significant effort under Task 6 (i.e., ECS Development Analysis) to ensure that IR-1 and Release A are perceived as a success within both the EOSDIS and user communities. In concert with these goals, the IV&V team will begin shifting its focus from requirements analysis to interface and development analysis.

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2. TECHNICAL INFORMATION

2.1 Task # 3: Independent Verification and Validation Plans

a) Task Accomplishments

- Completed all activities for this task on time and within the budgeted Level of Effort (See Appendix 3A for summary schedule).
- Submitted the final version of the IV&V Management Plan (IVVMP) ahead of schedule on December 9, 1994.
- Submitted the final version of the Independent System V&V Plan (ISVVP) on schedule (December 15, 1994).

b) Issues/Concerns

- None.

c) Subcontractor Performance

- All subcontractors performed well on this task. CTA and EWA provided technical inputs and reviewed the two delivered Plans. SMSRC also reviewed the plans.

d) Planned Activities

- Task complete.

2.2 Task # 4: IV&V Infrastructure and Tool Development

a) Task Accomplishments

- Completed draft of the ISE System Architecture document (dated December 15, 1994) and planned for the ISE System Architecture Review scheduled for January 12, 1995.
- Reviewed revised Tool Management Plan appendix of the IV&V Management Plan (IVVMP).
- Completed the Lotus Notes Data Management application and started developing a Mosaic interface for documents contained within the Data Management database.

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- Started developing an Issue/Discrepancy Handling System (IDHS) to centralize the tracking of issues and Discrepancy Reports (DRs) and issues submitted by the IV&V team.
- Continued enhancing the IV&V network suite by configuring the Sun SPARC 1000 server and the HDS X-terminals. Also installed RTM/Oracle as well as evaluation copies of Sybase, DDTs, ClearCase, and ClearCase/DDTs Integration on server. In addition, installed evaluation copy of Xsoftware PC X Server software, and completed evaluations of Sybase SQL Server and Xsoftware products.
- Continued addressing ARDB connectivity issues to the RTM/Oracle database.
- Attended the second level of Lotus Notes system administration training.

b) Issues/Concerns

- The time associated with getting GFE approval for the purchase of software and equipment is causing some delays in the development of the Integrated System Environment (ISE). We are attempting to adjust the schedule somewhat to account for this built-in delay.

c) Subcontractor Performance

- CTA's performance during this reporting period was excellent. They provided valuable input during the development of the ISE System Architecture document, and they were also directly responsible for the development gains realized on the Interface Analysis Database (IADB) tool.
- EWA's performance during this reporting period has also been excellent. They supported the system administration activities for the Fairmont facility and provided engineering expertise associated with the Mosaic Internet browser.

d) Planned Activities

- Prepare and deliver the ISE System Architecture presentation.
- Generate a draft of the ISE Software Development Plan (SDP).
- Achieve connectivity between the Lotus Notes servers in Greenbelt and Fairmont. Also, install the Lotus Notes Data Management (DM) application in Greenbelt.
- Install updated version of client interface software for Interface Analysis Database (IADB) and Automated Requirements Database (ARDB).

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- Document and present the IDHS analysis results to the IV&V task leads.
- Continue IADB and IDHS prototype developments.
- Investigate the need associated with remotely accessing the Fairmont and Greenbelt LANs.
- Support program meetings and briefings as required.

2.3 Task # 5: Requirements Analysis and Traceability

a) Task Accomplishments

- Attended ECS FOS PDR and submitted 19 RIDs on December 21 (1 week after the end of the FOS PDR).
- Completed planning phase of ECS IR-1 requirements analysis.
- Continued effort to map user scenarios to ECS Level 3 requirements.
- Reviewed and commented on HAIS' second draft of the science user survey.
- Attended regularly scheduled ECS modeling meetings/demos with Chris Daly and HAIS. Also, attended AHWGP modeling presentation by HAIS on December 13-14, 1994.
- Received and installed Version 1 (V1) of the BONEs model and BONEs data structure tables. Also, initiated activity to establish technical and operational understanding of the V1 model.
- Presented IV&V assessment of the HAIS models to Dale Harris, John Dalton, and other ESDIS managers on December 21, 1994.

b) Issues/Concerns

- We will need access to HAIS cost modeling details if the IV&V function is expected to validate the cost model.
- Continued IV&V support for the ECS modeling assessment will be difficult after mid-February 1995 due to funding constraints.

c) Subcontractor Performance

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- Subcontractor performance has been excellent.

d) Planned Activities

- Receive/Install/Analyze HAIS user and performance models (Version 2).
- Receive update to MTPE Level 1 / Level 2 requirements RTM database.
- Establish RTM database partitioning capability between IV&V and HAIS.
- Prepare/Present Task 5 findings to ESDIS management at monthly meeting.
- Attend ECS CSMS PDR and prepare RIDs.
- Support other program meetings and briefings as required.

2.4 Task # 9: Key Interface Analysis

a) Task Accomplishments

- Met with Ted Ackerson, the ESDIS TRMM Interface Manager, to review findings of the TRMM Technical Assessment Report (TAR) in detail.
- Continued data flow analysis of Institutional and AM-1 IRDs. Also began review of NASA Science Internet (NSI), Version 0, and EDOS-ECS IRDs.
- Completed IRD/ICD analysis schedule based on inputs from SES and other sources.
- Prepared observations on the interface control process and provided these to CSC.
- Presented IV&V issues associated with system interfaces to Dale Harris, John Dalton, and other ESDIS managers on December 21, 1994.
- Attended the FOS PDR and prepared RIDs.
- Continued obtaining Interface Analysis Database (IADB) tool requirements from user of prototype.

b) Issues/Concerns

- We have noted several inconsistencies related to the scheduling and Configuration Management (CM) of Interface Requirements Documents (IRDs). For example, we have received updated documents *after* they have been baselined. In addition,

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document markings are not adequate to determine the status of a given document – a baselined version is indistinguishable from subsequent review versions. Also, the ESDIS Project schedule does not reflect multiple ICDs for each IRD. What is needed is a more consistent approach across all IRDs. We have suggested that GSFC baseline requirements by release (i.e., Level 3.5) at the appropriate time, and that they clarify the scheduling and CM processes.

- We have had difficulty in consistently obtaining project schedules, deliverables, CCB minutes, etc. We have also encountered difficulties in obtaining the “Related Documents” which are cited in the IRDs. We request that the IV&V team be added to distribution lists for deliverables, meeting minutes, schedule updates, and the like.

c) Subcontractor Performance

- CTA is the task lead for this effort. Their performance has been excellent.

d) Planned Activities

- Perform any required updates to the TRMM Pilot Analysis.
- Continue analysis and peer review of IRDs for March 1 delivery. The goal is to complete the requirements analysis of the IR-1 IRDs as well as AM-1 and EDOS for the March 1 delivery of an updated Automated Requirements Database (ARDB).
- Begin meetings with each ESDIS Interface Manager.
- Conduct peer reviews of Institutional and Version 0 requirements.
- Continue to obtain user input on the IADB.
- Support program meetings and briefings as required.

2.5 Task # 10: Development of EOSDIS Certification Plan

a) Task Accomplishments

- Delivered initial draft of the EOSDIS Integration and Certification Plan (EICP) on December 14, 1994.
- Conducted an EICP briefing to NASA systems managers and others on December 21, 1994.

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- Delivered the Performance Dependency Analysis Tool Requirements document on December 16, 1994, one month ahead of schedule.
- Participated in working group meetings to maintain currency with program direction.

b) Issues/Concerns

- Obtaining consensus on a consistent set of certification criteria continues to be a challenge. We are working jointly with all relevant parties to determine an acceptable approach.

c) Subcontractor Performance

- CTA is working well under this task by providing major technical inputs. SMSRC and EWA are not directly involved. (See Appendix 10A for summary schedule.)

d) Planned Activities

- Begin interim draft of the EICP.
- Develop plans for a database which will capture thread definitions and provide a certification cross reference index to map these threads to requirements. This database will be in integral tool in the system certification process.
- Continue defining and developing system certification criteria.
- Support program briefings as required.

2.6 Task # 12: EDOS IV&V

a) Task Accomplishments

- Provided a weekly assessment of TRW's progress on the Contract Understanding Period (CUP) task assignment reports (# 94-2 through # 94-8), and participated in a preliminary draft peer review on December 30, 1994. TRW is currently revising their study reports based on this review.
- Submitted preliminary Baseline Requirements Analysis Report on schedule at end of December.
- Began importing and installing EOS Level 1 and 2 requirements as well as their linkage information from Code 170 to the project IV&V RTM database. Also, began analyzing issues related to requirements technical integrity.

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- Reviewed both the ECS Independent System V&V Plan (ISVVP) and the EDOS Performance Verification Plan (PVP) and noted 36 areas in which these two planning documents differed. In order to achieve greater parity and consistency across the EOSDIS program, recommended that the EPVP be updated to more fully address the entire system life cycle.
- Supported EDOS Project by participating in weekly Test Organization Group (TOG) meetings as well as splinter working group meetings for EDOS RTM database design and operations prototype.

b) Issues/Concerns

- None.

c) Subcontractor Performance

- CTA was a solid contributor in all activities related to this task. They attended meetings with the EDOS Integration and Test Manager, and supported reviews of the TRW CUP studies.

d) Planned Activities

- Review the revised CUP task assignment reports (# 94-2 through # 94-8).
- Continue RTM database design effort and analysis of baseline requirements.
- Support EDOS SRR pre-review and associated V&V activities.
- Coordinate activities with other members of the IV&V team, and support program meetings/briefings as required.

2.7 Task # 13: IV&V Special Studies

a) Task Accomplishments

- Prepared a task plan for the Version 0 (V0) analysis.
- Met with Greg Hunolt (Assistant Technical Representative for the Version 0 portion of Task 13) on December 7 and presented our Version 0 analysis plan.
- Began reviewing COTS remote terminal emulator tools. The selected tool will be used in the testing of user interfaces for Version 0.

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- Contacted Hughes STX (the V0 development contractor) to assess the V0 timestamp capability and data formats.
- Exercised the V0 Character Mode Interface (ChUI) for the Langley V0 DAAC.
- Attended the ETS Delta SRR on December 20, 1994.

b) Issues/Concerns

- None.

c) Subcontractor Performance

- CTA is the lead for this new task. They have made an excellent start at laying the groundwork for an effective Version 0 analysis.

d) Planned Activities

- Attend monthly V0 status meeting with Greg Hunolt on January 5, 1995.
- Initiate telephone contact with the 6 DAACs selected for the V0 characterization.
- Begin X-Windows access to V0 systems at GSFC, LaRC, and MSFC from the Intermetrics Greenbelt facility. Assess bandwidth requirements.
- Test the availability and use of the timestamp feature at the 6 DAACs.
- Define V0 test scenarios.
- Begin analysis of the ETS.
- Support program meetings/briefings as required.

SECTION 2 APPENDICES

APPENDIX 3A

Summary Task 3 Schedule

APPENDIX 10A

Summary Task 10 Schedule

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3. FINANCIAL/CONTRACTUAL INFORMATION

**Section 3 of This Report
Has Been Removed
Due to Proprietary Content.**